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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/758,550	01/14/2004	Shinichi Shoji	OMRNP073	5997

22434 7590 05/03/2005

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EXAMINER

KRAMSKAYA, MARINA

ART UNIT PAPER NUMBER

2858

DATE MAILED: 05/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/758,550

Applicant(s)

SHOJI ET AL.

Examiner

Marina Kramskaya

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) 5-12 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 January 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 1/14/2004.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1-4, drawn to "a capacitive sensor", classified in class 324, subclass 658.
 - II. Claims 5-12, drawn to "a detector for detecting objects caught by a door", classified in class 307, subclass 9.1.

The inventions are distinct, each from the other because of the following reasons:

2. Inventions group I and group II are related as combination and subcombination. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed because the combination does not require a body provide on a door or a sensor circuit. The subcombination has separate utility such as capacitive sensor.
3. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

4. During a telephone conversation with K. Nishimura on 04/27/2005 a provisional election was made without traverse to prosecute the invention of Group I, claims 1-4. Affirmation of this election must be made by applicant in replying to this Office action. Claims 5-12 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Priority

5. Acknowledgment is made of applicant's claim for foreign priority based on an application filed in Japan on 01/16/2003. It is noted, however, that applicant has not filed a certified copy of the 2003-008292 application as required by 35 U.S.C. 119(b).

Drawings

6. The drawings are objected to because the reference lines and arrows associated with reference numerals are unclear. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several

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views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 1 & 2 are rejected under 35 U.S.C. 102(b) as being anticipated by Kato et al., US 6,456,198

As per Claim 1, Kato discloses a capacitance sensor having specified directionality, said capacitance sensor comprising:

- detection electrodes (70 & 80);
- an insulating material insulating said detection electrodes from each other (column 11, line 67-column 12, line 1);

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- a main body (61) containing said detection electrodes and said insulating material and having a detection surface defined by said directionality (in the direction of 54); and
- a water-repellant finish (column 12, lines 38-40) over at least a portion of said main body (54) including said detection surface.

As per Claim 2, Kato further discloses the capacitance sensor comprising:

- a shield electrode (composed of 72, 73, 74) inside said main body (61), said shield electrode being open toward said detection surface (toward 54), said detection electrodes being disposed inside said shield electrode (See FIG. 7); and
- a protective cover (case 61 and top member 54) covering said shield electrode and said detection electrodes.

9. Claim 3 is rejected under 35 U.S.C. 102(b) as being anticipated by Tsuruoka et al., US 5,992,240.

Tsuruoka discloses a capacitance sensor having specified directionality, said capacitance sensor comprising:

- detection electrodes (37a & 37b, FIG. 9);
- an insulating material (portion 33 of the insulation 31, FIG. 9) insulating said detection electrodes from each other; and

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- a main body (32") containing said detection electrodes and said insulating material and having a detection surface defined by said directionality, said detection surface having unevenness (see 64 in FIG. 10B, column 14, lines 54-55).

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tsuruoka in view of Kato.

Tsuruoka discloses the capacitance sensor as applied to Claim 3 above.

Tsuruoka does not disclose

- a shield electrode inside said main body, said shield electrode being open toward said detection surface, said detection electrodes being disposed inside said shield electrode; and
- a protective cover covering said shield electrode and said detection electrodes.

Kato discloses the capacitance sensor comprising:

- a shield electrode (composed of 72, 73, 74) inside said main body (61), said shield electrode being open toward said detection surface (toward 54), said

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detection electrodes being disposed inside said shield electrode (See FIG. 7);

and

a protective cover (case 61 and top member 54) covering said shield electrode and said detection electrodes.

Therefore, it would have been obvious to a person of ordinary skill in the art to include a shield electrode and a protective cover, as taught by Kato, in order to protect the detection electrodes.

Conclusion

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Elliott, US 5,082,588, and Thompson, US 6,696,948, disclose a capacitive sensor with a water-repellant coating.

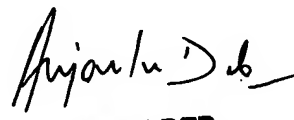
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marina Kramskaya whose telephone number is (571)272-2146. The examiner can normally be reached on M-F 7:00-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Lefkowitz can be reached on (571)272-2180. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MK


ANJAN DEB
PRIMARY EXAMINER

Marina Kramskaya
Examiner
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